

INFORMATION SHEET

SPRAY PAINTING/SPRAY BOOTH

A permit is required from the Fire Prevention Division to conduct a spraying or dipping operation utilizing flammable or combustible liquids or the application of combustible powders. **NFPA 1: 1.12.19**

A permit is required from the Fire Prevention Division to store, handle, or use Class I liquids in excess of 5 gallons inside a building or in excess of 10 gallons outside of a building, or to store, handle, or use Class II or Class III-A liquids in excess of 25 gallons inside a building or in excess of 60 gallons outside a building. **NFPA 1: 1.12.19**

- A Certificate of Occupancy shall be obtained from the Building Department before occupancy of the structure. **IBC 110.1**
- A permit shall be obtained from the Building Department for any altering, repairing, or installation of walls, electrical equipment, etc. **IBC 105.1**
- Operations involving the spray application of flammable and combustible materials shall comply with NFPA 33, *Standard for Spray Application Using Flammable or Combustible Materials* and **NFPA 1, Section 43.1.1**
- Spraying operations conducted in Assembly, Educational, Institutional, or Residential Occupancies shall be located in a spraying room protected with an approved automatic sprinkler system and separated both vertically and horizontally from other areas. In other occupancies, spraying operations shall be conducted in a spray booth, spraying area, or spraying room. **NFPA 1: 43.1.2**
- Walls and ceilings that enclose a spray area shall be constructed of noncombustible or limited-combustible materials or assemblies and shall be securely and rigidly fastened. The interior surfaces of the spray area shall be smooth, designed and installed to prevent pockets that can trap residues, and designed to facilitate ventilation and cleaning. **NFPA 1: 43.1.3.1**
- The aggregate area of spray booths in a building shall not exceed the lesser of 10 percent of the area of any floor of the building or the basic area allowed for a Group H-2 occupancy without area increases, as set forth in the International Building Code. The area of an individual spray booth in a building shall not exceed the lesser of the aggregate size limit of 1,500 square feet. **NFPA 1: 43.1.3.1.9 & CLV Ordinance #5667**

Exception: One individual booth not exceeding 500 square feet.

- A Limited Spraying Space shall comply with the following: The aggregate surface area to be sprayed shall not exceed 9 square feet; spraying operations shall not be of a continuous nature; positive mechanical ventilation providing a minimum of six complete air changes per hour shall be installed (see Code for requirements); and electrical wiring within 10 feet of the floor and 20 feet horizontally of the limited spraying space shall be designed for Class I, Division 2 locations in accordance with the Electrical Code. **NFPA 1: 43.1.3.1.10.1 through 43.1.3.1.10.4 & CLV Ordinance #5667**
- Spray booths shall be installed so that all parts of the booth are readily accessible for cleaning, and a clear space of not less than 3' shall be kept free of storage or combustible materials (see exceptions) **NFPA 1: 43.1.3.3.1**
- All spray areas shall be kept free of the accumulation of deposits of combustible residues. Maintenance procedures shall be established to ensure that all spray application apparatus and processes are operated and maintained in accordance with the manufacturers' specifications and requirements of NFPA 33. **NFPA 1: 43.1.8.2**
- Spray areas, which include the associated exhaust plenums, exhaust ductwork, and mixing rooms shall be protected with an approved automatic fire protection system. **NFPA 1: 43.1.7.1**

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- Type 40-B:C portable fire extinguishers shall be located within and around spraying areas so that any point of the spray finishing area is within 30 feet of an appropriate extinguisher. Portable fire extinguishers are required *in addition* to the approved automatic fire protection system. **NFPA 1: 43.1.7.4 & NFPA 10: 5.3.1**
- Each spray area shall be provided with mechanical ventilation that is capable of confining and removing vapors and mists to a safe location and is capable of confining and controlling combustible residues, dusts, and deposits. The concentration of the vapors and mists in the exhaust stream of the ventilation system shall not exceed 25 percent of the lower flammable limit. **NFPA 1: 43.1.5.2**
- Spray areas equipped with overspray collection filters shall have visible gauges, audible alarms, and/or an effective inspection program to ensure that the required air velocity is being maintained. **NFPA 1: 43.1.5.2.1**
- Mechanical ventilation shall be kept in operation at all times while spraying is being conducted and for a sufficient time thereafter to allow any accumulated vapors to be exhausted. If spraying operations are automatic, the spraying apparatus shall be interlocked with the ventilation system so that spraying may not be conducted without the ventilation system in operation. **NFPA 1: 43.1.5.2.3**
- Air exhausted from spray areas shall not be recirculated and shall not be discharged in the direction of combustible construction that is within 25 feet. **NFPA 1: 43.1.5.4 and 1.5.5**
- Approved metal waste cans shall be provided wherever rags or waste are impregnated with sprayed material and all such rags or waste deposited therein immediately after use. The contents of waste cans shall be disposed of at least once daily at the end of each shift. **NFPA 1: 43.1.8.5**
- Smoking shall be prohibited in spray-finishing areas and in the vicinity of dip tanks. NO SMOKING OR OPEN FLAMES signs in large letters on contrasting color background shall be conspicuously posted in all spray areas and paint mixing and storage rooms. **NFPA 1: 43.1.8.10**
- Welding, cutting, and other spark-producing operations shall not be permitted in or adjacent to spraying areas, dipping operations, paint storage rooms, or paint mixing rooms. **NFPA 1: 43.1.8.11**
- The total amount of flammable or combustible liquids permitted in a single spray area shall not exceed 60 gallons. **NFPA 1: 43.1.6.3.3** The requirements for the storage, handling, and distribution of flammable and combustible liquids in spray-finishing areas is detailed in **NFPA 1: 43.1.6**
- Spray booth exit doors shall swing in the direction of exit travel and shall not be less than 32" x 80" (some exceptions) **NFPA 101: 7.2.1 (Doors)**
- Clear panels for observation or to cover light fixtures shall be of heat-treated glass, wired glass, or hammered-wired glass and shall be sealed to confine vapors, mists, residues, dusts, and deposits to the spray area. Panels for light fixtures shall be separated from the fixture to prevent the surface temperature from exceeding 200 degrees F. **NFPA 1: 43.1.3.5**
- Portable electric lamps shall not be used in spraying areas during operations unless they are specifically classified for the hazards present. **NFPA 1: 43.1.4.7**
- Light fixtures, electrical wiring, motors, and other electrical equipment which is intended to be part of a spray-finishing operation shall be listed, rated, designed, installed, used, and maintained in accordance with manufacturers' specifications *and* as required by **NFPA 1: 43.1.4**

The items listed are basic information only. Codes subject to change. Additional requirements may apply.

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